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THE TABANIDÆ OF THE AMERICAN MUSEUM CONGO EXPEDITION, 1909–1915[1]

By Joseph C. Bequaert[2]

Some years ago, the late Professor James S. Hine and I prepared an elaborate joint report upon the Tabanidæ of the Belgian Congo, including the material collected by the Lang-Chapin Expedition. Owing mainly to the fact that the collection was mislaid, this paper could not be published. Meanwhile much of it has become out-of-date or superfluous. The present short report merely enumerates the species obtained by the Congo Expedition of 1909–1915, with the addition of a few forms obtained by Dr. James P. Chapin on his recent journey to the Belgian Congo (1930–1931).

Of the original joint manuscript, only the description of *Tabanus brunneicollis* is reproduced here and that species should therefore be credited jointly to Prof. Hine and myself.

In 1930, I published a revision of the Tabanidæ of the Belgian Congo, including keys for the identification of genera and species ('The African Republic of Liberia and the Belgian Congo,' II, pp. 858–971). The list of the species and varieties known from that territory has since been increased to one-hundred and thirty-seven by the following additions:

Stenophara elongata (Ricardo) = *Pangonia elongata* Ricardo, 1908, Ann. Mag. Nat. Hist., (8) I, p. 54 (♀; Mt. Kilimanjaro, Tanganyika Territory). I have seen a male of this species taken at Kasenga, on the Luapula River, in April, 1931, by H. Bredo. It is also known from southern Abyssinia, Kenya Colony, and Northeastern Rhodesia.

Tabanus fulvianus Loew, 1858, Öfv. Kgl. Vet. Ak. Förh., Stockholm, XIV, (1857), p. 339 (♀; Caffraria). I have seen two females of this species from the Katanga District: one taken at Lubumbashi in November, 1928, by Ch. Seydel; the other at Elisabethville, December 17, 1930, by Michael Bequaert. A careful comparison of these two specimens with a female from Delarey, Transvaal (January 1, 1917; H. Brauns), failed to disclose appreciable differences. The species, curiously enough, was not seen again since Loew described it, unless it was confused with some similar form.

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Tabanus brunneicollis Hine and Bequaert, described in this paper. Type locality: Stanleyville.

Many of the most interesting tabanids listed in this paper were obtained by Mr. Herbert Lang while making observations on the habits of certain species of *Bembix*, as recorded in his subjoined field-notes.

When in Stanleyville, at the beginning of 1915, I found that the subsiding waters had exposed the sand-flats on the right bank of the Congo River just below Stanley Falls and also the more extensive sand deposits on the forested left bank of the Tshopo River, along the great curve below the falls. By the middle of February, fossorial wasps of the genus *Bembix* had taken up their abode on these sand-flats. Below Stanley Falls their number was restricted, perhaps due to disturbance by natives. Near Tshopo Falls, however, the more lonely site was apparently found ideal for a colony of several thousands of these wasps.

The female *Bembix* carried, as food for the young, freshly killed Diptera which were in perfect condition when taken from their captors. Representatives of many families were among the victims, such as Bombyliidæ, Syrphidæ, Stratiomyidæ, Muscoidea, etc.; but Tabanidæ were especially numerous, which was the more gratifying since I had tried in vain to gather these flies otherwise. When caught in the net the *Bembix* at once dropped its prey and, if released, would soon reappear on the scene with another fly. One wasp, recognizable by a slightly mutilated wing, within two hours returned to its nest with eleven flies. It was an unusual opportunity to profit by the activities of such busy collectors. Fortunately Dr. Joseph Bequaert happened to be in Stanleyville at that time, and we made several excursions together to the Tshopo Falls. His helpful information on the habits of *Bembix* and his generous encouragement caused me considerably to enlarge the Congo Expedition's collection of Diptera.

For this work I trained half a dozen native boys, providing them with nets and remunerating them according to the number of flies they brought in. Only during the hours of greatest sunshine was it worth while to attend these colonies, that is from 10 A.M. to 3 P.M. At other times the *Bembix* brought relatively few flies, being occupied rather with digging or clearing their tunnels which might have been closed by accident or rain. On rainy days they were not active, and after a number of dry days would also catch fewer flies. But the day following a rainy spell, prey was carried to the nest in considerable numbers. Evidently there was then greater need of food for the larvæ, which in the genus *Bembix* are gradually supplied with nourishment.

At Tshopo Falls the *Bembix* colonies were chiefly composed of two species. The smaller, less numerous form, *Bembix braunsii* (Handlirsch),[1] frequented only the higher lying, flatter, and harder portion of the sandy areas. They dived into their nests without much hovering about and were generally more evasive. Their burrows were fairly far apart and yielded but few flies.

The larger *Bembix*, *B. bequaerti* Arnold var. *dira* Arnold (1929, Ann. Transvaal Mus., XIII, pt. 4, p. 351), was the chief provider of our collection. This species reaches a total length of nine-tenths of an inch. The female is bluish steel-black with rather reduced yellow markings on the sides. The male is much more brightly colored,

[1]Determined by Dr. G. Arnold, of the Rhodesia Museum, Bulawayo.

yellow, with narrow, black, transverse stripes on the abdomen; the dorsal side of the thorax bears a broad and conspicuous, yellow, horsehoe-shaped design. This species was so numerous, that during the most favorable period, from the middle of February to April 10, several thousands were to be found in some colonies. Their nests were so close together, that at least thirty entrance holes could be swept with the net at any point. These wasps preferred the steeper portions of the bank with a slope of about 40° or 50°. Here the sand was loose, dry on top, and easily shifted under foot. At a depth of three or four inches, however, it was quite moist and made tunneling easy, as it kept in place. The moisture did not appear to increase at a depth of 45 inches, the length of the longest channels; yet it was sufficient to protect the larvæ and pupæ against the great variation in temperature that the short periods of dry and wet days cause near the surface. During the hours of sunshine, when hundreds of *Bembix* were digging in the most densely populated parts of the colony, it looked from a distance as if the sand were blown out in miniature clouds of dust from the many entrances.

Frequently on reaching the nest a *Bembix* had to lay aside the fly it was carrying in order to be free for digging. Sometimes the fly was accidentally buried in the sand thrown out and was then forgotten. Or perhaps another female pounced upon such momentarily abandoned prey. Occasionally, too, a homecoming female was rushed at by several yellow males competing for her possession, the group forming one whirling mass of wasps. Of course, a female thus held up usually dropped her fly at the very beginning of the tussle.

I collected also some of the tiny muscoid flies (*Idia* sp.) that not only follow a *Bembix* carrying prey but often enter its tunnels and stay inside from two to four minutes. According to Dr. Bequaert, they probably parasitize the *Bembix* larvæ or at least feed on the prey brought into the burrow by the female wasp. Certain small Carabidæ also have the habit of running into these passages and scurrying out again shortly after the *Bembix* enters. Apparently the same species of beetle is also found running about under the dead leaves near the edge of the sand-bank.

After April 10, 1915, the rising waters completely flooded the *Bembix* colonies, and great chunks of the sand-banks were eaten away, thus exposing many cocoons of the wasps. Huge waves from the falls at the period of intermittent rise and fall of the water washed away much of the sand from the banks, merely to redeposit it later when high water definitely set in as a result of the rainy season. From then on it was a waste of time to watch the *Bembix* colonies for flies.

The following is a list of the twenty-six species of Tabanidæ found by Mr. Lang at Stanleyville, among the prey of *Bembix bequaerti* var. *dira* G. Arnold. The large proportion of males taken by the wasps is noteworthy.

Dasycompsa cincta Enderlein. ♀ ♂
Tabanocella stimulans (Austen). ♀ ♂
Thriambeutes singularis Grünberg. ♀ ♂
" *austeni* (Hine). ♀ ♂
Subpangonia gravoti Surcouf. ♂
Chrysops griseicollis J. Bequaert. ♀
" *dimidiata* van der Wulp. ♀
" *langi* J. Bequaert. ♀ ♂
Tabanus irroratus Surcouf. ♀
" *fasciatus* Fabricius. ♀
" *boueti* Surcouf. ♀ ♂
" *besti* Surcouf. ♀ ♂
" *obscurehirtus* Ricardo. ♀ ♂
" *obscurior* Ricardo. ♀ ♂
" *canus* Karsch. ♀ ♂
" *billingtoni* Newstead. ♀ ♂

Tabanus marmorosus var. *congoicola* J. Bequaert. ♀ ♂
" *obscurefumatus* Surcouf. ♂
" *brunneicollis* Hine and J. Bequaert. ♀ ♂
" *variabilis* Loew. ♀
Tabanus socialis Walker. ♀ ♂
" *secedens* Walker. ♀ ♂
" *congoiensis* Ricardo. ♀ ♂
" *regnaulti* Surcouf. ♀ ♂
Thaumastocera akwa Grünberg. ♀ ♂
Hippocentrum strigipenne (Karsch). ♀ ♂.

Approximate Location of Localities Mentioned

Akenge, 2° 55′ N., 26° 50′ E.
Avakubi, 1° 20′ N., 27° 40′ E.
Bafwaboli, 0° 40′ N., 26° 10′ E.
Bagana, 8° N., 7° 40′ E.
Basoko, 1° 20′ N., 23° 35′ E.
Basongo, 4° 25′ S., 20° 30′ E.
Bayenga (Uele-Nepoko)
Benin, 6° 20′ N., 5° 40′ E.
Benue (R.), 8° N., 7° to 10° E.
Bolengi, 0° 5′ S., 18° 10′ E.
Bolobo, 2° 15′ S., 16° 15′ E.
Buddu, 1° S., 32° E.
Bumba, 2° 10′ N., 22° 30′ E.
Chinchoxo, 5° 15′ S., 12° 15′ E.
Chinfimo, 5° 20′ S., 12° 15′ E.
Coquilhatville, 0° 1′ N., 18° 20′ E.
Delarey, 26° 40′ S., 25° 30′ E.
Elisabethville, 11° 45′ S., 27° 40′ E.
Faradje, 3° 40′ N., 29° 40′ E.
Garamba, 4° 10′ N., 29° 40′ E.
Johann-Albrechtshöhe, 4° 40′ N., 9° 25′ E.
Kampala, 0° 20′ N., 32° 20′ E.
Kasala (R.), near Mpumu.
Kasenga, 10° 15′ S., 28° 45′ E.
Kiadondo, near Kampala.
Kikwit, 5° 25′ S., 18° 50′ E.
Kimuenza, 4° 25′ S., 15° 20′ E.
Kinshasa, 4° 20′ S., 15° 20′ E.
Landana, 5° 15′ S., 12° 15′ E.
Lastourville, 0° 45′ S., 12° 40′ E.
Leopoldville, 4° 25′ S., 15° 20′ E.
Lisala, 2° 10′ N., 21° 30′ E.
Lokoja, 7° 35′ N., 6° 30′ E.
Lolodorf, 3° 15′ N., 10° 40′ E.
Lubumbashi, 11° 45′ S., 27° 40′ E.
Lubutu, 0° 40′ S., 26° 40′ E.
Lukolela, 1° 10′ S., 17° 10′ E.
Lutete, 5° S., 14° 40′ E.
Mabira Forest, 0° 30′ N., 32° 45′ E.
Malela, 6° S., 12° 40′ E.
Masindi, 1° 50′ N., 31° 50′ E.
Matadi, 5° 50′ S., 13° 35′ E.
Medje, 2° 25′ N., 27° 30′ E.
Misahöhe, 6° 55′ N., 0° 35′ E.
Mpumu, 0° 15′ N., 32° 50′ E.
Murchison Falls, 2° 15′ N., 31° 40′ E.
Niangara, 3° 40′ N., 27° 50′ E.
Niapu, 2° 15′ N., 26° 50′ E.
Nimule, 3° 40′ N., 32° 10′ E.
Ntem (R.), 2° 10′ N., 12° E.
Ogowe (R.), 1° S., 10° E.
Oware, 5° 30′ N., 7° E.
Panga, 1° 45′ N., 26° 15′ E.
Pawa, 2° 25′ N., 27° 50′ E.
Poko, 3° 10′ N., 26° 50′ E.
Port Natal, 29° 50′ S., 31° E.
Rio Nunez, 10° 45′ N., 14° 35′ W.
Ruwe, 10° 40′ S., 25° 35′ E.
Sanaga (R.), 3° 30′ to 4° N., about 10° E.
San Benito (R.), 1° 35′ N., 9° 35′ E.
Sanga (Mayumbe).
Sangha (R.), 5° N. to 1° S., 16° to 17° E.
Sibange Farm, 0° 25′ N., 9° 35′ E.
Stanleyville, 0° 30′ N., 25° 15′ E.
Thysville, 5° 30′ S., 15° E.
Tshumburi [=Chumbiri], 2° 40′ S., 16° 15′ E.
Usoga [=Busoga], 0° 30′ N., 33° 30′ E.
Vankerckhovenville, 3° 20′ N., 29° 20′ E.
Vivi, 5° 45′ S., 13° 35′ E.
Wadelai, 2° 45′ N., 31° 30′ E.
Wathen, 5° S., 14° 35′ E.
Zambi, 6° S., 12° 50′ E.

PANGONIINÆ

TRIBE **Pangoniini**

Dasycompsa cincta Enderlein

Dasycompsa cincta ENDERLEIN, 1922, Mitt. Zool. Mus. Berlin, X, pt. 2, p. 344 (without specific description); 1925, *op. cit.*, XI, pt. 2, p. 317 (♂; Sanaga, Cameroon). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 871 (♀ ♂).

BELGIAN CONGO.—Stanleyville, three females and two males (one of them the allotype), as prey of *Bembix bequaerti* var. *dira* Arnold, April, 1915 (H. Lang and J. P. Chapin).

Tabanocella stimulans (Austen)

Rhinomyza stimulans AUSTEN, 1910, Ann. Mag. Nat. Hist., (8) VI, p. 354 (♀; Benué River, between Bagana anad Lokoja, Northern Nigeria).

Tabanocella stimulans J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 874.

BELGIAN CONGO.—Niangara, one female, June, 1913; Medje, three females; Stanleyville, seven females and one male, as prey of *Bembix bequaerti* var. *dira* Arnold, March and April, 1915 (H. Lang and J. P. Chapin).

The American Museum possesses also a female of this species from the Gaboon.

Tabanocella perpulcra (Austen)

Rhinomyza perpulcra AUSTEN, 1910, Ann. Mag. Nat. Hist., (8) VI, p. 349 (♀; Kasala Stream near Mpumu, Uganda).

Tabanocella perpulcra J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 876.

BELGIAN CONGO.—Medje, one female (H. Lang and J. P. Chapin).

This specimen agrees in every detail with Austen's excellent description, so that there is no longer any doubt as to the occurrence of this species in the Belgian Congo. The description of the abdominal markings in my key (1930, *op. cit.*, p. 873) should be corrected to read: "Abdomen yellow to brownish yellow, with two dorsal, longitudinal, brownish-black bands, which are narrowed and removed from the sides of the first and most of the second tergite." On the remainder of the abdomen the black bands reach the sides and they are fused over the apical tergite.

Thriambeutes singularis Grünberg

Thriambeutes singularis GRÜNBERG, 1906, Zoolog. Anzeiger, XXX, p. 354, Figs. 4–6 (♀; Misahöhe, Togo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 877. SCHOUTEDEN, 1927, Rev. Zool. Afric., XV, pt. 2, Bull. C. Zool. Cong., p. [10]; 1931, Rev. Zool. Bot. Afric., XX, pt. 4, Bull. C. Zool. Cong., p. [98].

BELGIAN CONGO.—Stanleyville, one female and one male, March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

Schouteden has also reported this tabanid from Basongo and Sanga (Mayumbe), localities of the Belgian Congo not listed by me in 1930.

Thriambeutes austeni (Hine)

Orgizomyia austeni HINE, 1927, Amer. Mus. Novitates, No. 285, p. 3 (♀ ♂; Stanleyville, Belgian Congo).

Thriambeutes austeni J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 876. SCHOUTEDEN, 1931, Rev. Zool. Bot. Afric., XX, pt. 4, Bull. C. Zool. Cong., p. [98]; 1932, *op. cit.*, XXI, Bull. C. Zool. Cong., p. [37].

BELGIAN CONGO.—Stanleyville, thirty-nine females and thirty-three males (including the holotype ♀ and the allotype ♂), March, April, and May, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin). One of the males was freshly hatched and not yet colored out.

Schouteden recently reported this species from Bayenga (Uele-Nepoko), and from Faradje.

Subpangonia gravoti Surcouf

Subpangonia gravoti SURCOUF, 1908, Bull. Mus. Hist. Nat. Paris, XIV, p. 284 (♀; N'tem Basin, French Congo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 880 (♀ ♂).

BELGIAN CONGO.—Stanleyville, four males, March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

TRIBE **Chrysopini**

Chrysops griseicollis J. Bequaert

Chrysops griseicollis J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 897 (♀; Stanleyville, Belgian Congo).

BELGIAN CONGO.—The holotype was collected at Stanleyville by H. Lang and J. P. Chapin, as prey of *Bembix bequaerti* var. *dira* Arnold. Another, poorly preserved female (not a type) bears the same data; it was sent for examination to Major Austen, who recognized in it a new species.

Chrysops dimidiata van der Wulp

Chrysops dimidiata VAN DER WULP, 1885, Notes Leyden Mus., VII, p. 80[1] (♀; Chinfimo near Landana, Portuguese Congo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 897.

[1]The page reference given by me in 1930 is erroneous.

BELGIAN CONGO.—Stanleyville, four females, March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold; Medje, one female (H. Lang and J. P. Chapin).

Chrysops silacea Austen

Chrysops silacea AUSTEN, 1907, Ann. Mag. Nat. Hist., (7) XX, p. 509 (♀; Kimuenza, Belgian Congo, one of the original localities, designated as type locality by J. Bequaert in 1930). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 898.

BELGIAN CONGO.—Medje, six females; Akenge, four females, October, 1913 (H. Lang and J. P. Chapin).

Chrysops langi J. Bequaert

Chrysops langi J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 898 (♀ ♂; Stanleyville, Belgian Congo).

BELGIAN CONGO.—The holotype (♀), allotype (♂) and four paratypes (♀) were collected at Stanleyville by H. Lang and J. P. Chapin, as prey of *Bembix bequaerti* var. *dira* Arnold.

Major Austen, to whom a paratype was sent for examination, recognized in it a new species allied to *C. dimidiata* van der Wulp.

Chrysops distinctipennis Austen

Chrysops distinctipennis AUSTEN, 1906, 'Second Rept. Wellcome Res. Labor. Khartoum,' p. 53, Pl. IV (♀; Usoga, Uganda). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 900.

BELGIAN CONGO.—Faradje, one female, April, 1911 (H. Lang and J. P. Chapin).

This specimen was sent to Major Austen, who kindly confirmed the identification.

Chrysops longicornis Macquart

Chrysops longicornis MACQUART, 1838, Mém. Soc. Sci. Agric. Arts Lille, pt. 2, p. 160, Pl. XIX, figs. 2–2*a*; 1838, 'Dipt. Exot.,' I, pt. 1, p. 156, Pl. XIX, figs. 2–2*a* (♀; Senegal). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 901.

BELGIAN CONGO.—Malela, five females, June, 1915 (H. Lang and J. P. Chapin).

TABANINÆ

TRIBE **Tabanini**

Tabanus irroratus Surcouf

Tabanus irroratus SURCOUF, 1909, Bull. Mus. Hist. Nat. Paris, XV, p. 355 (♀; Lastourville, French Congo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 914.

BELGIAN CONGO.—Stanleyville, seven females, March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

Tabanus fasciatus Fabricius

Tabanus fasciatus FABRICIUS, 1775, 'Syst. Entom.,' p. 788 (no sex; Sierra Leone; according to Wiedemann, Fabricius' type was a ♀). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 914.

Tabanus fasciatus var. *nigripes* SURCOUF, 1909, Bull. Mus. Hist. Nat. Paris, XV, p. 537 (no sex; no locality mentioned, but by inference from the Belgian Congo). Not *Tabanus nigripes* Wiedemann, 1821.

BELGIAN CONGO.—Lisala, May 16, 1915; Coquilhatville, thirteen females, May 19, 1915; between Bolobo and Lukolela, four females; Medje; Stanleyville, March, 1915, twenty females, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin). Lukolela, eighteen females, October 1930 to April 1931 (J. P. Chapin).

The variations of this common, West African species have been recently discussed by me (1930). Unfortunately several matters were overlooked at the time. The name "*nigripes*" is preoccupied in the genus *Tabanus* by Wiedemann's earlier use of it for a North American species. However, no new vocable will be needed for Surcouf's var. *nigripes*, since a more careful study of the original descriptions shows that Fabricius' *fasciatus* and Surcouf's *nigripes* were both based upon the very same color form. In his original account, Fabricius wrote: "*Pedes nigri, femoribus pallidis.*" No Sierra Leone specimens are available; but I have seen several females from Liberia, in which all the tibiæ and tarsi are entirely black, the hair fringes of the hind tibiæ being also pure black. Surcouf's variety *nigripes* was briefly described as having all the "tibiæ and tarsi black."

Surcouf (1909, Bull. Mus. Hist. Nat. Paris, XV, p. 537) regarded as typical *fasciatus* a form of the species with "the fore tibiæ black with black pile, the other tibiæ yellowish." Such specimens are occasionally found in the Belgian Congo; but I do not believe that they are more than individual variations and as such deserve no special name. Not only are they taken in the same localities, together with the typical form, but they are also connected with the latter by transitional specimens in which the middle and hind tibiæ show various degrees of infuscation. It may be noted here that in most specimens of *T. fasciatus* that I have seen, from Liberia as well as from the Belgian Congo, the fore femora also are considerably darkened.

Tabanus atripes van der Wulp (1885, Notes Leyden Mus., VII, p. 75, Pl. v, fig. 4), based upon a female from the Ogowe River, Gaboon,

was described as having the "legs black; anterior tibiæ slightly dilated, convex on the outside; hind tibiæ fringed on both sides with short black hairs." Assuming this description to be correct, it would seem that specimens agreeing with it have not been seen again. Those from various localities in the Gaboon, called *T. atripes* by Surcouf (1909, 'Et. Monogr. Taban. Afrique,' p. 24), are very different, since he states that the inner and outer fringes of the hind tibiæ ("cuisses postérieures" is evidently a *lapsus* for "tibias postérieurs") are "d'un jaune doré." These specimens, if they have actually the legs entirely black, must represent a quite remarkable color variety; but, not having seen them, I refrain from proposing a name.[1]

Tabanus fasciatus subspecies *niloticus* Austen (1906, 'Second Rept. Wellcome Res. Labor. Khartoum,' p. 62, Pl. VI; ♀; Anglo-Egyptian Sudan) was excellently described and illustrated by the author. It differs from the typical form, "in the colouration and hairy covering of the front tibiæ (which in the typical form are entirely black and clothed exclusively with black hair), in the colouration of the middle and hind tibiæ (yellow or greenish yellow instead of black or dark brown), and in the hind tibiæ on the outside having a golden instead of a black fringe." Although (as recognized by Austen) this race is connected by transitions with typical *T. fasciatus*, it is fully entitled to recognition by name. It is, moreover, chiefly a Sudanese form, being known from Gambia, Dahomey, Northern Nigeria, French Equatorial Africa, the Anglo-Egyptian Sudan, Uganda, and the Nyanza Province of Kenya Colony.

In his account of the subspecies *niloticus*, Austen mentions that "A transitional form [to typical *T. fasciatus*] is also found in the Congo Free State, where specimens are met with showing no golden hairs on the basal half of the front tibiæ, but with golden hairs, interspersed with the black or more or less predominant, in the fringe on the inner and outer side of the basal half of the hind tibiæ." Surcouf's var. *mixtus* (May 1914, Rev. Zool. Afric., III, pt. 3, p. 472)[2] was evidently based upon such specimens from the Belgian Congo (Bolobo; Yumbi, Morebu Moke; Lukolela; Bamu; between Irebu and Ikengo; all these localities are on the River Congo, between Kinshasa and Coquilhatville). Surcouf even mentions specimens from Yumbi and Bolobo having the fringe of the hind tibiæ "complètement dorée." Since every transition may be found in the very same locality from specimens with a black fringe to those with the fringe almost entirely golden, I believe that the latter are only extreme individual variations, not worthy of recognition in nomenclature.

[1]Surcouf's plate I, fig. 1, labelled "*Tabanus atripes*," represents a specimen without legs.

[2]*Tabanus mixtus* Szilády, of the Mediterranean Subregion, was published in December, (1914 Ann. Mus. Nat. Hungarici, XII, p. 672).

My key (1930) to the varieties of *T. fasciatus* should be amended as follows:

1.—Ground color of all legs entirely black.....2.
Legs partly greenish yellow.....3.
2.—Fringes of hind tibiæ black.....var. *atripes* (van der Wulp).
Fringes of hind tibiæ golden (? Surcouf's supposed "*atripes*" from the Gaboon).
3.—Fore tibiæ dark brown, yellowish toward base above, where they bear short, golden hair; middle and hind tibiæ yellow or greenish yellow; hind tibiæ with the outer fringe entirely golden, the inner fringe partly yellow and partly black.....subsp. *niloticus* Austen.
Fore tibiæ entirely black, clothed with black hair only; middle and hind tibiæ varying from yellowish brown to pure black.....4.
4.—Outer fringe of hind tibiæ black.....typical *fasciatus*.
Outer fringe of hind tibiæ partly or wholly golden.....var. *mixtus* Surcouf.

Although *T. fasciatus* is one of the most common West African species of the genus, males are hardly ever seen in collections and that sex has never been properly described. There are only two references to it in the literature. Wiedemann (1828, 'Aussereurop. Zweifl. Ins.,' II, p. 134) follows his brief diagnosis of *T. fasciatus* with the signs "♂ ♀"; but he evidently did not see a male from Sierra Leone (as Surcouf states). His more detailed description of the male of the Vienna Museum could not have been based upon an African *T. fasciatus*. The statement that each segment of the abdomen showed a triangular whitish spot suggests that he had before him the male of the species from Java (probably *Tabanus optatus* Walker), which he described in a preceding paragraph as differing in a number of particulars from the African *T. fasciatus*.

In a key to the species of his "First Group" of *Tabanus*, Surcouf (1922, 'Voy. de M. de Rothschild en Ethiopie, Rés. Scientif., Anim. Artic.,' II, p. 843) states that in the male of *T. fasciatus* subspecies *niloticus*, the eyes have a zone of large facets of a grayish-bronze color, the remainder being as in the female. The locality of this male is not given.

Tabanus boueti Surcouf

Tabanus boueti Surcouf, 1907, Bull. Mus. Hist. Nat. Paris, XIII, p. 333 (♀; Lower Ivory Coast). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 919 (♀ ♂).

Belgian Congo.—Stanleyville, six females and four males (including the ♂ allotype), March, 1915, as prey of *Bembix bequaerti* Arnold var. *dira* Arnold (H. Lang and J. P. Chapin).

One of the females sent for study to Major Austen was named by him *T. boueti*.

Tabanus besti Surcouf

Tabanus besti Surcouf, 1907, Archives de Parasitologie, XI, p. 473 (♀; Gambia). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 919 (♀ ♂).

Belgian Congo.—Stanleyville, five females and five males (including the ♂ allotype), March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

Some of the females were sent for study to Major Austen, who identified them as *T. besti.*

Tabanus obscurehirtus Ricardo

Tabanus obscurehirtus Ricardo, 1908, Ann. Mag. Nat. Hist., (8) I, p. 374 (♀; Lutete, Belgian Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 920 (♀ ♂).

Belgian Congo.—Stanleyville, one female and one male (allotype), March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold; Akenge, two females, October, 1913; between Bolobo and Lukolela, nine females, July, 1909 (H. Lang and J. P. Chapin). Lukolela, one female, April, 1931 (J. P. Chapin).

Tabanus par Walker

Tabanus par Walker, 1854, 'List Dipt. Brit. Mus.,' V, Suppl. 1, p. 235 (♀; Port Natal). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 921.

Belgian Congo.—Zambi, one female, June, 1915 (H. Lang and J. P. Chapin).

Tabanus thoracinus Palisot de Beauvois

Tabanus thoracinus Palisot de Beauvois, 1807,[1] 'Insectes Recueillis en Afrique et Amérique,' p. 55 (♀; Oware and Benin, Southern Nigeria); Atlas, Pl. 1 (Dipt.), fig. 4. J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 922.

Belgian Congo.—Stanleyville, four females (H. Lang and J. P. Chapin). Lukolela, one female, April, 1931 (J. P. Chapin).

Tabanus obscurior Ricardo

Tabanus obscurior Ricardo, 1908, Ann. Mag. Nat. Hist., (8) I, p. 276 (♀; Wathen, Belgian Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 922.

Belgian Congo.—Stanleyville, five females and eleven males (including the allotype), March and April, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

[1]According to C. D. Sherborn (1922, 'Index Animalium,' Sect. 2, pt. 1, p. xcix), pp. 41 to 80 of Palisot de Beauvois' work, containing the descriptions of the African species, *T. thoracinus*, *T. ruficrus*, and *T. tæniola*, were published in 1807.

Tabanus fuscomarginatus Ricardo

Tabanus fuscomarginatus Ricardo, 1908, Ann. Mag. Nat. Hist., (8) I, p. 273 (♀; Kampala-Kiadondo, Uganda). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 923.

Belgian Congo.—Avakubi, six females, October, 1909; Panga, five females, September, 1914; Akenge, one female, October, 1913 (H. Lang and J. P. Chapin).

Tabanus ruficrus Palisot de Beauvois

Tabanus ruficrus Palisot de Beauvois, 1807, 'Insectes Recueillis en Afrique et Amérique,' p. 55 (♀; Oware, Southern Nigeria); Atlas, Pl. I (Dipt.), fig. 3 (as *T. rufipes*). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 923.

Belgian Congo.—Stanleyville, three females, August 25, 1909; Bafwaboli, three females, September, 1909; between Bolobo and Lukolela, one female, July, 1909; Medje, four females; Pawa, one female; Garamba, two females, February, 1910 (H. Lang and J. P. Chapin). Lukolela, six females, December, 1930, and January, 1931 (J. P. Chapin).

The American Museum collection contains also three females from the Gaboon.

Tabanus canus Karsch

Tabanus canus Karsch, 1879, Zeitschr. Ges. Naturw., LII, p. 377, Pl. IV, fig. 1 (♀; Chinchoxo, Portuguese Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 924 (♀ ♂).

Belgian Congo.—Medje, two females, August 25, 1910; Avakubi, one female, October 13, 1909; Poko, one female, August, 1913; Stanleyville, two females and one male (allotype), March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin). Lukolela, one female, November 6, 1930 (J. P. Chapin).

Tabanus billingtoni Newstead

Tabanus billingtoni Newstead, 1907, Ann. Trop. Med. Paras., I, p. 46, Pl. III, fig. 1 and Pl. IV, figs. 10–12 (♀ ♂; Tshumbiri, Bolengi and Matadi, Belgian Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 925.

Belgian Congo.—Niapu, one female, January, 1914; Akenge, two females, September, 1913; between Bolobo and Lukolela, one female, July, 1909; Basoko, one female, July 25, 1909; Stanleyville, seven females and two males, April, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin). Lukolela, three females, November 1, 1930, and April, 1931 (J. P. Chapin).

Tabanus marmorosus var. **congoicola** J. Bequaert

Tabanus marmorosus var. *congoicola* J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 926 (♀ ♂; holotype ♀, between Thysville and Kinshasa; allotype ♂, Stanleyville; paratypes ♀, Stanleyville and Lubutu; all Belgian Congo).

BELGIAN CONGO.—Stanleyville, two females; (paratypes) and one male (allotype), April, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold; Medje, one female (H. Lang and J. P. Chapin).

A female from the Gaboon, in the American Museum Collection, also belongs to the variety *congoicola.*

Tabanus obscurefumatus Surcouf

Tabanus obscurefumatus SURCOUF, 1906, Bull. Mus. Hist. Nat. Paris, XII, p. 523 (♀; San Benito River, French Congo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 927 (♀ ♂).

BELGIAN CONGO.—Medje, one female, Stanleyville; two males (one the allotype), March and April, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

Tabanus brunneicollis Hine and Bequaert, new species

FEMALE.—Length of body (two specimens), 18 mm.; width of head, 6 mm.; length of wing, 15 to 16 mm.; width of frons, nearly three-fourths mm. at vertex, not more than one-half mm. at lower margin of the eye.

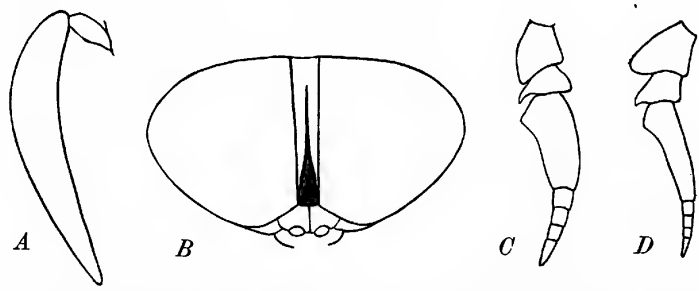

Fig. 1. *Tabanus brunneicollis*, new species. *A*, palp of female; *B*, head of female from above; *C*, antenna of female; *D*, antenna of male.

A brown, rather robust species. Abdomen black with white hairs on the posterior margins of the segments, especially prominent on the margins of segments two, three and four. Wings nearly uniformly dark brown, in both sexes. Legs dark brown. Eyes bare. All the posterior cells open; fork of third longitudinal vein without appendix.

Head: frons and face uniformly brown pollinose; face with sparse black hairs; beard black; frons near three-fourths millimeter wide at vertex, gradually narrowed

to the lower margin of the eyes; frontal callosity (Fig. 1*B*) almost as wide as the frons below, of the same width for nearly the first millimeter of its length, then quite rapidly narrowed to a line that extends upward to the last quarter of the frons. Antennæ, palpi, and proboscis of the same color, very dark brown, nearly black, and furnished with black hair; first antennal segment enlarged and most prominent dorsally; third segment (Fig. 1*C*) in general rather narrow, dorsal basal prominence conical, not pronounced and very close to the base of its segment, basal portion decidedly longer than the annulate portion. Palpi (Fig. 1*A*) slender, as long as the proboscis. Thorax: dorsum, including the scutellum, reddish brown without evident markings, clothed mostly with short pale brownish hair; sides clothed with longer and darker hair; a small tuft of black hairs beneath the base of the wing and another one in front of the halter on the pleuron. Abdomen: dorsally, first segment brown, just a little darker than the scutellum, clothed mostly with dark hair, but a few white hairs at middle and sides of posterior margin; remainder of abdomen black; immediate posterior margins of segments two, three, and four, each with a fringe of hairs, conspicuously silvery white at sides and in the middle and dark otherwise; segments beyond the fourth not white fringed on the margins, except for a few white hairs in the middle and on the sides of the fifth. Ventrally, the abdominal colors agree with the dorsum, except that the fringes of white hairs are interrupted by dark ones at the middle, thus forming two series instead of three. Squamæ brown and bearing a tuft of white hairs. Halteres with brown stalks and pale yellowish-white knobs. Legs dark brown; fore femora nearly black, clothed everywhere with dark hairs; fore tibiæ not dilated.

MALE.—Length of body (four specimens), 17 to 19 mm.; width of head, 6 to 7.5 mm.

Head somewhat enlarged; a very large area of enlarged facets which are abruptly separated from small facets above and below. Abdomen reddish brown above and below, with pale yellowish hairs on the posterior margins of the segments. Otherwise the male is colored like the female and is easily associated with it. Third antennal segment (Fig. 1*D*) much more slender than in the female.

BELGIAN CONGO.—Holotype female and a paratype of the same sex; allotype and three paratype males; all from Stanleyville, March, 1915, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

Holotype and allotype at The American Museum of Natural History. Paratypes (♀ ♂) at the Museum of Comparative Zoölogy, Cambridge, Mass.

This species has affinities with *T. obscurefumatus* Surcouf, but the color of legs and wings are distinctive and it is more robust in general appearance. *T. tenuipes* Austen, from the Gold Coast and Sierra Leone, suggests *brunneicollis*, but that species has a distinct white scutellum, the frons is described as being narrower and the legs as being very differently colored.

Tabanus biguttatus Wiedemann

Tabanus biguttatus WIEDEMANN, 1830, 'Aussereurop. Zweifl. Ins.,' II, p. 623 (♂; Cape of Good Hope). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 928 (♀ ♂).

BELGIAN CONGO.—Matadi, one male, June 9, 1915 (H. Lang and J. P. Chapin).

Tabanus xanthomelas Austen

Tabanus xanthomelas AUSTEN, 1912, Ann. Mag. Nat. Hist., (8) IX, p. 29 (new name for *T. leucaspis* van der Wulp). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 930 (♀ ♂).

BELGIAN CONGO.—Garamba, five females, June, 1912; Faradje, five females, March, 1911; Vankerckhovenville, two females, April, 1912 (H. Lang and J. P. Chapin).

Tabanus variabilis Loew

Tabanus variabilis LOEW, 1858, Öfv. Kgl. Vet. Ak. Förh., Stockholm, XIV (1857), p. 340 (♀; Caffraria). J. BEQUAERT, 1930, 'The African Republic of Liberia a d the Belgian Congo,' II, p. 934.

BELGIAN CONGO.—Stanleyville, one female, as prey of *Bembix bequaerti* var. *dira* Arnold (H. Lang and J. P. Chapin).

Tabanus laverani Surcouf

Tabanus laverani SURCOUF, 1907, Bull. Mus. Hist. Nat. Paris, XIII, p. 331 (♀; lower Rio Nunez, French Guinea). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 935.

BELGIAN CONGO.—Garamba, one female, May 3, 1912 (H. Lang and J. P. Chapin).

Tabanus socialis Walker

Tabanus socialis WALKER, 1850, 'Ins. Saunders.,' I, Dipt., p. 45 (♀ "Cape," according to Austen, the type is labelled "Congo"). J. BEQUAERT 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 937.

BELGIAN CONGO.—Stanleyville, three females and four males (one the allotype), as prey of *Bembix bequaerti* var. *dira* Arnold, March, 1915 (H. Lang and J. P. Chapin).

MALE (undescribed).—Length of body, 15 mm.; width of head, 5.8 mm.; length of wing, 12 mm.

Very similar to the female, with which it is readily associated; the lighter median markings of the dorsum of the abdomen very indistinct. Head large, hemispherical, with holoptic eyes; area of enlarged facets sharply delimited, occupying most of the upper two-thirds of the eye, though separated from the posterior orbit by a wide band of small facets; in the dry specimen a broad pale band divides the two areas. Third antennal segment more slender than in the female, with the basal tooth lower.

Four specimens from Stanleyville. Allotype at The American Museum of Natural History.

One of the females was identified by Major Austen.

Tabanus secedens Walker

Tabanus secedens WALKER, 1854, 'List Dipt. Brit. Mus.,' V, Suppl. 1, p. 224 (new name for *T. tibialis* Walker). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 938 (♀ ♂).

BELGIAN CONGO.—Stanleyville, forty females and twenty-two males, as prey of *Bembix bequaerti* var. *dira* Arnold, March, 1915; Lisala, sixty-one females, May 16, 1915; Coquilhatville, forty-eight females, May 19, 1915; Basoko, five females, July 24, 1909; between Bolobo and Lukolela, seventeen females; Medje, two females; Avakubi, one female (H. Lang and J. P. Chapin).

I am more than ever inclined to regard *T. claripes* Ricardo, originally based upon a single female from Leopoldville, as an individual variation of *T. secedens*. Miss Ricardo stated that *claripes* is "easily distinguished by its bright reddish-yellow coxæ from *T. secedens* Wlk. . . . , and by its larger size and redder legs, the fore femora being red, not blackish and by the markings of the abdomen, which consist of distinct, grey, median, triangular spots, not continuous, and of indistinct reddish-yellow side spots. Length 24 mm." The description of the abdomen fits many of the specimens of *T. secedens* from the Belgian Congo, and in these the fore femora vary from red to blackish. The character of the "bright reddish-yellow coxæ" loses much of its value, through the more detailed description: "the coxæ at their extreme apex and the middle coxæ wholly black."

Tabanus quadrisignatus Ricardo

Tabanus quadrisignatus RICARDO, 1908, Ann. Mag. Nat. Hist., (8) I, p. 320 (♀; Ruwe, Katanga, Belgian Congo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 940.

BELGIAN CONGO.—Faradje, two females; Garamba, one female, May 3, 1912 (H. Lang and J. P. Chapin). Lukolela, eighteen females, August, 1930 (J. P. Chapin).

Tabanus congoiensis Ricardo

Tabanus congoiensis RICARDO, 1908, Ann. Mag. Nat. Hist., (8) I, p. 328 (♀; Wathen, Belgian Congo). J. BEQUAERT, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 941 (♀ ♂).

BELGIAN CONGO.—Niangara, one female; Lisala, one female, May 15, 1915; Coquilhatville, one female, May 19, 1915; Stanleyville, seven females and two males (including the allotype), as prey of *Bembix bequaerti* var. *dira* Arnold, March, 1915 (H. Lang and J. P. Chapin).

Tabanus regnaulti Surcouf

Tabanus regnaulti Surcouf, 1912, Bull. Soc. Ent. France, p. 183, Fig. 1 (on p. 184) (♀; Sangha River, French Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 942 (♀ ♂).

Belgian Congo.—Stanleyville, seven females and four males (including the allotype), as prey of *Bembix bequaerti* var. *dira* Arnold, March, 1915 (H. Lang and J. P. Chapin).

One of the females was sent to Major Austen, who kindly confirmed the identification.

Tabanus sagittarius Macquart

Tabanus sagittarius Macquart, 1838, Mém. Soc. Sci. Agric. Arts Lille, pt. 2, p. 127; 1838, 'Dipt. Exot.,' I, pt. 1, p. 123 (♀; Cape of Good Hope). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 943.

Belgian Congo.—Faradje, one female; between Bolobo and Lukolela, three females, July, 1909 (H. Lang and J. P. Chapin).

Tabanus tæniola Palisot de Beauvois

Tabanus tæniola Palisot de Beauvois, 1807, 'Insectes Recueillis en Afrique et Amérique,' p. 56 (♀; Oware and Benin, Southern Nigeria); Atlas, Pl. 1 (Dipt.), fig. 6. J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 943.

Belgian Congo.—Lisala, six females, May 16, 1915; Coquilhatville, five females, May 19, 1915; between Bolobo and Lukolela, one female, July, 1909; Faradje, three females; Garamba, one female (H. Lang and J. P. Chapin). Lukolela, two females, August, 1930 (J. P. Chapin).

Tabanus denshamii Austen

Tabanus denshamii Austen, 1908, Ann. Mag. Nat. Hist., (8) I, p. 222 (♀; between Masindi and Murchison Falls, Uganda). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 944.

Belgian Congo.—Faradje, two females, April, 1911 (H. Lang and J. P. Chapin).

Thaumastocera akwa Grünberg

Thaumastocera akwa Grünberg, 1906, Zoolog. Anzeiger, XXX, p. 356, Figs. 7, 8 and 9 (♀ ♂; Johann-Albrechtshöhe and Lolodorf, Cameroon). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 946 (♀ ♂).

Belgian Congo.—Stanleyville, one female and one male, as prey of *Bembix bequaerti* var. *dira* Arnold, March, 1915 (H. Lang and J. P. Chapin).

I have also seen recently a female from the Mabira Forest, in eastern Uganda (collected by Mr. Arthur Loveridge, August 1, 1930), which is as far east as this species has ever been found. It is one more proof, if any were needed, that the fauna of Uganda is typically West African or Guinean.

Tribe **Hæmatopotini**

Hæmatopota ciliatipes J. Bequaert

Hæmatopota ciliatipes J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 956 (♀; Kikwit, the type locality, and several other localities in the Belgian Congo).

Belgian Congo.—Avakubi, one female paratype, October 4, 1909 (H. Lang and J. P. Chapin).

Hæmatopota denshamii Austen

Hæmatopota denshamii Austen, 1908, Ann. Mag. Nat. Hist., (8) I, p. 220 (♀; Nimule to Wadelai, Uganda). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 958 (♀ ♂).

Belgian Congo.—Garamba, fifty-two females, June, 1912; Faradje, four females, April, 1911; Pawa, one female, April 7, 1913 (H. Lang and J. P. Chapin).

Some of these specimens were sent to Major Austen, who kindly confirmed the identification.

Hæmatopota inornata Austen

Hæmatopota inornata Austen, Ann. Mag. Nat. Hist., (8) II, p. 103 (♀; Buddu, Uganda). J Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 960.

Belgian Congo.—Medje, four females (H. Lang and J. P. Chapin).

Hæmatopota partifascia J. Bequaert

Hæmatopota partifascia J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 962 (♀; Lubutu, Belgian Congo).

Belgian Congo.—Lukolela, one female, November 19, 1930 (J. P. Chapin).

Hæmatopota ochracea (Bezzi)

Chrysozona Hæmatopota) ochracea Bezzi, 1908, Ann. Soc. Ent. Belgique, LII, p. 375 (♀; Vivi, Belgian Congo).

Hæmatopota ochracea J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 964 (♀ ♂).

Belgian Congo.—Zambi, one female, June, 1915; Malela, fourteen females and one male (allotype), June, 1915 (H. Lang and J. P. Chapin).

Hæmatopota angustifrons Carter

Hæmatopota angustifrons Carter, 1915, Ann. Trop. Med. Paras., IX, p. 185, Fig. 6; Pl. xiii, fig. 2 (♀; Belgian Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 967.

Belgian Congo.—Lukolela, one female, July 30, 1930 (J. P. Chapin).

Hæmatopota harpax Austen

Hæmatopota harpax Austen, 1914, Bull. Ent. Res., IV, p. 289 (♀; Coquilhatville, Belgian Congo). J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 968.

Belgian Congo.—Bumba, two females, May 15, 1915 (H. Lang and J. P. Chapin). Lukolela, one female, December 24, 1930 (J. P. Chapin).

Hippocentrum strigipenne (Karsch)

Hæmatopota strigipennis Karsch, 1889, Entom. Nachrichten, XV, p. 240 (♀; Sibange Farm, Gaboon River, French Congo).

Hippocentrum strigipenne J. Bequaert, 1930, 'The African Republic of Liberia and the Belgian Congo,' II, p. 970 (♀ ♂).

Belgian Congo.—Stanleyville, eleven females and two males (including the allotype), as prey of *Bembix bequaerti* var. *dira* Arnold, March, 1915 (H. Lang and J. P. Chapin). Lukolela, six females, September to November, 1930 (J. P. Chapin).